Assumptions - Orders

2. EDI should be used for 80% of the orders and LENS should be used for 20%.

Comments

- The 80% and 20% assumptions need to be validated.

Recommended Action

- Validate 80% and 20% order mix assumptions.

Approval Limits

- Conditional, pending validation

Risk

- Low

Assumptions - Orders

3. **95% of all orders should be migration orders. The remaining 5% should be split evenly between A's and D's.**

Comments

- The assumptions are from the December, 1997 forecasted volumes, however, calculations are unclear.
- The distribution mix for Migration "as is" and Migration "with change" is in research.

Recommended Action

- Validate 95% are migration orders
- Validate why the orders are assumed to be split between As and Ds.
- Investigate if there needs to be a consideration for increased order volume to account for Number Portability orders.
- Validate the distribution mix for migration orders.

Approval Limits

- Conditional, pending validation

Risk

- Medium

Assumptions - Orders

4. One line per order will be acceptable. (This represents worst case scenario)

Comments

- Multi-Line and complex orders are currently processed manually in the PCU.

Recommended Action

- Validate if this assumption needs to take into consideration the number portability business flow impacting the order ratio.

Approval Limits

- Conditional, pending validation

Risk

- Low

Assumptions - Orders

5. A mixture of Residence and Business 1Frs and 1FBs will be acceptable. Ratios are not critical, since 1FRs and 1FBs process at essentially the same rate.

Comments

- Historical or performance data has not been presented to demonstrate that 1FRs and 1FBs process at the same rate.

Recommended Action

- Validate the data sources for 1FRs and 1FBs processing rate.

Approval Limits

- Conditional, pending validation

Risk

- Low

Assumptions - Orders

6. **Some number of 'bad' orders that will result in fall-out should be included. The ratio of 'good' orders to 'bad' orders should approximate the flowthrough rate seen in production (95%).**

Comments

- It is assumed that 'bad errors' are not operator errors, but the orders that are not passing SOER edits.

Recommended Action

- Validate 95% error rate is an accurate assumption.

Approval Limits

- Conditional, pending validation

Risk

- Low

Assumptions - Pre Orders

1. **Each pre-order session in LENS should consist of the same series of transactions that is used in placing a firm order (new and migration), with the exception of actually releasing the order downstream.**

Comments

- Under investigation is the question; should individual transactions (pre-order functions) that will be used more frequently than others be included.
- There is a severity code relative to LENS feature selections. This condition, if unresolved, will significantly degrade the response time and skew results.

Recommended Action

- Validate that the scheduled fix will be applied to resolve the severity condition.
- Consistently demonstrate all business transactions.

Approval Limits

- Conditional, pending validation

Risk

- Low

Assumptions - Pre Orders

3. Demonstrate a maximum of 200 concurrent LENS sessions will be acceptable.

Comments

- This does not quantify the concurrency during peak and non peak hours.

Recommended Action

- Validate that 200 concurrent LENS session will be an adequate maximum for pre-orders.
- Define the concurrency for peak and non peak hours of LENS pre-orders..

Approval Limits

- Conditional, pending actions.

Risk

- Low

Assumptions - Pre Orders

4. **Conducting a majority of the LENS sessions via a LAN-LAN connection is acceptable. Some small number of transactions should also be executed via Dial-Up and in the Internet.**

Comments

- Quantification is needed for the number of LAN-LAN and Dial-Up sessions.
- Is is unclear if the plan required the Secure ID card to be used in both access methods.

Recommended Action

- Define the quantification
- Validate that Secure ID cards with be used in both access methods.

Approval Limits

- Conditional, pending actions.

Risk

- Low

Assumptions - Completion Notices

5. **The 5,000 completion notices sent by SOCS do not have a correlation directly to the orders sent that day. This correlation doesn't exist in production either, since a completion notice often comes back days after the order is issued. Showing that the system can handle the volume of activity is the key here.**

Comments

- The 5,000 completion notices assumption needs validation to compensate for the 5% error rate assumed.
- Demonstrating volume, less correlation for completions is correct.
-

Recommended Action

- None, refer to prior assumption in Assumptions - General, #4.

Approval Limits

- Approved

Risk

- Medium

Assumptions - Completion Notices

6. **Most of the completion notices should be sent back during one hour to emulate the production schedule, in which all automatic completion notices are released form SOCS at 5:00 PM.**

Comments

- The 5,000 completion notices assumption needs validation as to the error rate and lag time of processing between 5-6 PM each evening.
- The term 'Most' should change to All.

Recommended Action

- None, refer to prior assumption in Assumption - General, #4.

Approval Limits

- Conditional, pending validation

Risk

- Medium

Dependencies - General Comments

Comments

- Add that Entrance Criteria has been met. Refer to Entrance Criteria for specifics.
- Attachment 1 is missing. It appears that this is a place holder, awaiting completion of this section.
- Revise the top of page 5 trying to describe the architectural design and insert a schematic.
- Reword the term 'consecutive days' to compliment the new approach of a 3 day span.
- In the last dependency, 'the Patinum Web Load tool will be used for capturing system responses'. For every order that is issued, from LENS, two pre-order sessions will be executed.....' Strike from LENS and the two pre-order sessions is a correct assumption.

Recommended Action

- Enhance documentation usability.
- Add Entrance Criteria as a dependency
- Add Attachment 1

Approval Limits

- Conditional, pending completion of actions

Risk

- Low

Entrance & Exit Criteria - Entrance

Entrance Criteria

1. **Functional system testing of the Local Exchange Ordering and Pre-Ordering Gateway System (ENCORE) is complete.**
2. ***No outstanding severity 1 or 2 defects.***

Comments

- The test environment is assumed to be functional.
- ENCORE functionality is presently unstable and unpredictable. Proceeding with the Volume Test would limit the transaction mix coverage and flowthrough capabilities until the recommended actions are fulfilled and severity 1 and 2 conditions are resolved. A partial Volume Test could be executed with limited coverage, but a plan to schedule a full coverage mix is strongly recommended.

Recommended Action

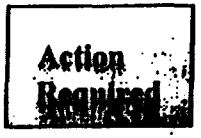
- Resolve Severity 1 and 2 code conditions in LENS, LESOG, and LEO.
- Rerun ENCORE system regression bucket prior to Volume Test.

Approval Limits

- Conditional, pending validation

Risk

- High



Entrance & Exit Criteria - Exit

Entrance Criteria

1. **All Volume objectives are met.**
2. **At least 5,000 orders processed / 5,000 FOCs returned each day for two 10-hour days.**
3. **At least 10,000 pre-order sessions executed each day for two 10-hour days.**
4. **At least 5,000 Completion Notices returned form SOCS each day for two 10-hour days.**
5. **No outstanding severity 1 or 2 defects impacting volume test cases.**

Comments

- Any severity 3 codes should be logged, tracked, and have resource assignment defined for resolution.

Recommended Action

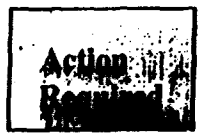
- Severity 3 conditions addressed.

Approval Limits

- Conditional, pending validation

Risk

- Low



Testbed Environment

Entrance Criteria

1. **This is work in progress. The data is being created and validated.**

Comments

- Comment pending with completion of environment.

Recommended Action

- Complete and validate the Testbed environment.

Approval Limits

- Conditional, pending validation

Risk

- High

Test Scenarios

Entrance Criteria

1. **This is work in progress pending recommended actions relative to assumptions be ing refined.**

Comments

- The scenarios are in construction to incorporate various test focus areas.

Recommended Action

- Complete the scenarios.
- Include a scenario for Peak Volume processing as the validation of peak processing is determined.
- Add scenarios for access methods; Dial-Up, LAN-LAN, Internet

Approval Limits

- Conditional, pending validation

Risk

- High

Schedule for the Demo Preparation

Schedule

1. **This is work in progress.**

Comments

- This work in progress and will continue to identify further milestones and the the associated Work Breakdown Structure. As recommended actions

Recommended Action

- Augment schedule with recommended actions.

Approval Limits

- Conditional, pending validation

Risk

- Medium

Measurements / Format for Results Reporting

Measurements

1. **This is work in progress.**

Comments

- Data points relative to specific hosts and OSSs continue to be refined and gaps closed.
- Report layouts are in design.
- Further comments will be made pending completion of data gathering process, data elements, and report layouts.

Recommended Action

- Complete the data gathering process definition
- Identify the measurement data elements
- Define the report layouts

Approval Limits

- Conditional, pending validation

Risk

- Medium

Potential Use of Test Tools

Tools

1. **Two tools were examined for potential use in facilitating the LENS testing. These included the Mercury Interactive tool, WEBTEST, as well as a QA Partner tool , QA Performer.**

Comments

- Each of these tools fell short of the business and technical needs in a key areas.
- Functionality was lacking in both tools in the ability to translate captured data to a dynamic logic template. They both were capable of capturing and storing data,then recording to a static template
- Business requirements were not met in the tools ability to track the number of hits to the Webserver or record response times.
- Given the schedule constraints it does not appear prudent to introduce a tool at this time.

Recommended Action

- Continue to explore use of automation tools for Volume, Stress, and Performance testing for ongoing Testing efforts.

Approval Limits

- Approved

Risk

- Low

Best Practices' Comparative Analysis
Findings and Recommendations

Key focus areas included the Test Plan, Test Environment, Test Scenarios, Library Control, Project Management, Problem Tracking, and Testing Metrics.

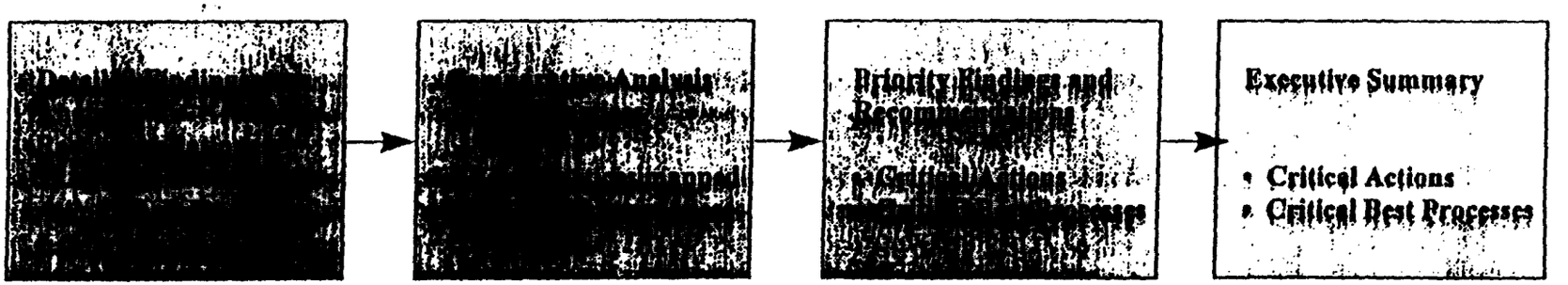
2 Types of Actionable Data are Recommended

A comparison was conducted to view the BellSouth Volume Test approach to industry 'Best Practices'. Recommended actions are noted in two categories:

1. Recommended Actions
2. Recommended Best Processes

A summary of the critical recommendation can be found in the Executive Summary

The Recommended Actions and Best Processes are launched from the Detailed Findings, Analysis, and Recommendations, Comparative Analysis of Best Practices, and the Priority Findings and Recommendations sections. A composite of critical recommendations are recorded in the Executive Summary section.



Best Practices Comparative Analysis
Data Sources

Various sources of BellSouth information were gathered in the Assessment to compare with 'Best Practices".

Best Practices

- Testing Literature
- Test Plans
- IBM Full Lifecycle Testing (FLT) templates
- Worldwide Solution Design and Delivery Methods (WSDDM)
- Experience and Education
- IBM Global Services SI/ADM Delivery Guide
- Performance Tools knowledge and expertise

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- Interviews
- Design documentation
- Test Plans
- Observations
- CMVC Defects and Defect Reports
- Daily Status Meetings
- Run Status and Run Logs
- Conference Calls
- Capacity Planning and Performance data

:st Practices Comparative Analysis
:st Plan

'he Test Plan is ongoing refinement with further clarity and definition. The test schedule is being evised due to the shifting completion dates of ENCORE functionality.

Test Plan

Best Practices

- Documented Test Plan
- Contains approved testing schedule
- Integrated with the system test plan
- Documented volume testing methodology
- Identifiable test objectives
- Entrance and exit criteria
- Documented test cases and test data
- Documented test environment

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- **The Volume Test plan is work in progress, with further refinement ongoing.**
- **Unit and Function testing continues, impacting stability of Volume Testing activities and predictability of dependencies.**
- **Volume Test scripts and scenarios are in development.**
- **Meeting the proposed testing schedule is at risk.**

Priority Findings

LENS, LESOG, and SOCS problems are impacting the stability and reliability of Volume Testing.

Test Environment

Best Practices

- Mirror the Production Environment
  - Equivalent hardware and networking
  - Production-level code for testing
- Test system(s) and configurations
  - Equal loads on shared resources
  - Can handle volume rates and times
- Test Scenarios and Scripts
  - Representative transactions and data flows
  - Test projected processing load, response times, transfer rates
  - Test volume rates and peak times
  - Use representative test data with equivalent content to production and with projected transaction coverage and mix
- Test tools, simulation, modeling, and prototyping requirements identified

BellSouth

- ***Test environment for LENS is unstable and unreliable.***
- **LESOG, LENS, and SOCS have severity 1s and 2s impacting the stability of Volume Testing.**

Priority Findings

- The Test environment is in place for EDI initiated LSRs through SOCS
- EDI test scenarios and data are created, but documentation is incomplete.
- LENS test scenarios and scripts are incomplete
- CMVC is being used to log Volume Test defects
- BEST / 1 is being used for performance monitoring and capacity planning on some hosts

here test scenario is too limited in scope. It does not address all the access methods nor the peak rocessing objectives. Test scripts and execution procedures are in development.

Test Scenarios / Data Analysis

Best Practices

- Test Scenarios and Scripts represent transactions and data flows
- Test Scenarios and Scripts test projected processing load, response times, transfer rates
- Test Scenarios and Scripts test volume rates and peak times
- Test Scenarios and Scripts use representative test data with equivalent content to production and with projected transaction coverage and mix

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- **Test scenarios are in development. Further work on scenarios for peak hours and access methods are needed.**
- **Execution procedures are in development.**
- Exploration of Mercury Interactive and Seque tools for WEB capture and playback was conducted.

Priority Findings

eleases are not well staged, communicated, or promoted evenly across applications resulting in costly and time nsuming rework.

Library Control

Best Practices

- Software Library tool(s) and controls in place
- Version or level control adhered to
- Backout procedures documented
- Code change management and procedures established
- Configuration Management tools and procedures are established

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- **Lack of DDS and STS coordination results in varying functionality levels and code promotions.**
- **No common Configuration tool is in use.**
- **Release Management does not appear to have documented steps, version retention, or release level content.**
- **There is no apparent assigned ENCORE Release Manager.**
- Cross-referencing and change control are limited.
- Code changes are done via DDS and STS requests to separate system administrators.

Priority Findings

Best Practices Comparative Analysis
Library Control

The gaps in planning and tracking of work activities result in fragmented communication, delays in problem resolution, and rework.

Project Management

Best Practices

- Regularly scheduled status meetings
  - Review changes to test plans
  - Review all milestone status
  - Provide status reporting of test using metrics, defects, progress
- Cross-functional coordination
  - Participate in Change Control meetings and activities
  - Monitor Configuration Management
  - Facilitate Problem Management (reporting, action plans, tracking)
  - Provide ongoing status summaries
- Planning and Tracking
  - Maintain Test Plan
  - Revise Schedule and Milestones
  - Perform risk assessment and review
  - Assign and resolve issues, and monitor action plans

BellSouth

- **Code changes and fixes are not well communicated.**
- **Schedule and milestones are not kept current or constrained with mitigation.**
- **Issues / Action Plans are not well documented, prioritized, monitored , or consistently tracked.**
- **ENCORE project status is not clearly integrated with the various sub project deliverables.**

Priority Findings

- Ad-hoc risk review and mitigation is in place.
- Issues are being tracked and addressed using an ad hoc process.
- Daily Cross-Functional coordination meetings are conducted.
- Daily Status Summary process exists, but application of process is inconsistent.